

Patent claims:

1. A process for the thermochemical modification of starch, with the exception of green-pea starch, in which

5 a) starch having a moisture content of a maximum of about 15-20% is heated in the presence of an acid at a rate of at least 3 K/min to a temperature no higher than about 50-120°C, and

 b) is then set to a pH of about 5.5-7.5,

10 2. The process for the thermochemical modification of starch as claimed in claim 1, in which a starch is used which is selected from the group consisting of corn starch, wheat starch, tapioca starch, mung bean starch and potato starch.

15 3. The process for the thermochemical modification of starch as claimed in claim 1, in which, before or during the neutralization, the temperature specified in claim 1 a) is held for a period of about 5 minutes to 1 hour and/or the starch is cooled to about 0-35°C after reaching the temperature specified in claim 1 a).

20 4. The process for the thermochemical modification of starch as claimed in claim 1, in which the starch is heated at a rate of 3-50 K/min to a temperature of about 60-120°C and is then neutralized.

25 5. The process for the thermochemical modification of starch as claimed in claim 1, in which the starch is heated in step a) to a temperature between the pasting temperature and 15°C above the pasting temperature of the starting starch.

6. The process for the thermochemical modification of starch as claimed in claim 1, in which the starch is heated in step a) to a temperature more than about 15-50°C above the pasting temperature of the starting starch.

5 7. A thermochemically modified starch which is obtainable by the process of claim 1:

8. The thermochemically modified starch as claimed in claim 7, based on one or more starches selected from the group consisting of corn starch, wheat starch and potato starch.

10 9. The thermochemically modified starch as claimed in claim 7, which features a granular structure.

15 10. The use of genetically modified starch in a process as claimed in claim 1 for producing thermochemically modified starch.

11. The use of a thermochemically modified starch as claimed in claim 7 for producing foods, food compositions or food intermediate products.

20 12. The use of a thermochemically modified starch as claimed in claim 7 or obtainable by one or more processes as claimed in claim 1 as fat substitute.

13. The use of a thermochemically modified starch as claimed in claim 7 or obtainable by one or more processes as claimed in claim 1 as gelatin substitute.

25 14. A food intermediate product, food or food composition comprising a thermochemically modified starch as claimed in claim 7.

15. A fat substitute comprising a thermochemically modified starch as claimed in
claim 7.

16. A gelatin substitute comprising a thermochemically modified starch as
claimed in claim 7.